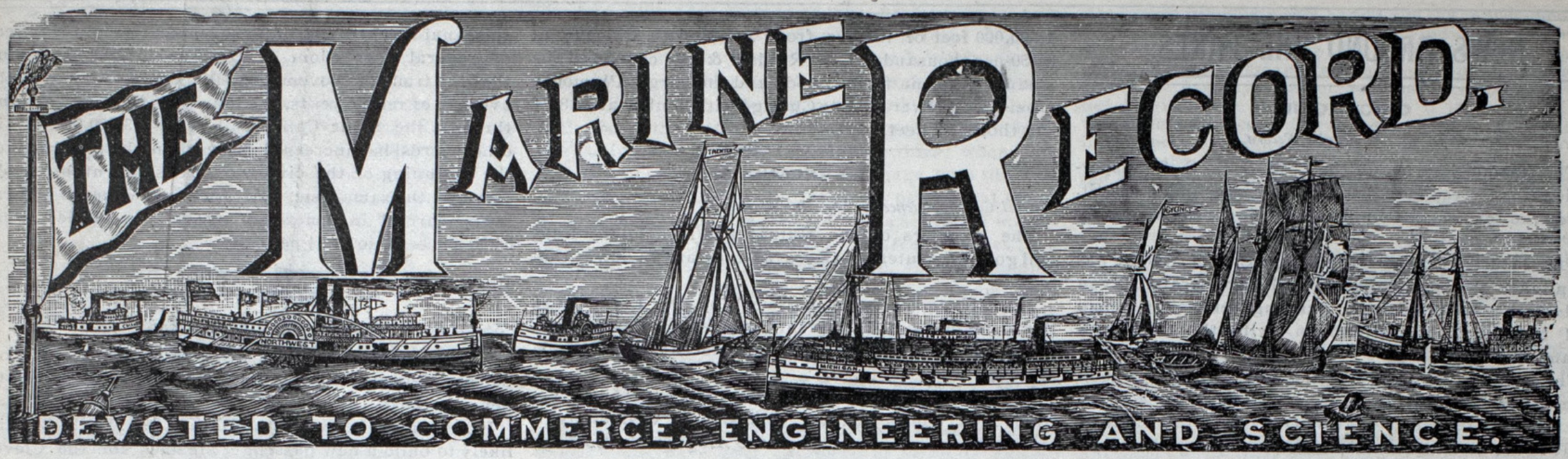

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VOL. XVII. CLEVELAND, OHIO, NOVEMBER 15, 1894. NO. 46

LAKE CARRIERS' ASSOCIATION.

To consider and take action upon all general questions relating to the navigation and carrying business of the Great Lakes, maintain necessary shipping offices and in general to protect the common interest of Lake Carriers, and improve the character of the service rendered to the public.

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THE HYDROGRAPHIC SERVICE.

Commander Chas. D. Sigsbee, the hydrographer of the ureau of Navigation, Navy Department, who has charge of the preparations of charts to guide mariners, has made an interesting annual report to Rear Admiral Ramsay, Chief of the Bureau. During the year new charts of the North Pacific Ocean and of the Great Lakes have been issued and have met with great success. Special supplements to the North Atlantic pilot chart have been greatly in demaud, especially those relating to the practical side of great-circle sailing, the delineation of ice limits over the banks and of the lines of equal magnetic variation to every degree. The establishment of branch hydrographic offices at Chicago and Cleveland, has been another innovation of the year. Surveys of the Detroit River entrance and of the west coast of Lower California have also been carried on.

Under special charge of the hydrographer attempts have been made to adopt and present pictorially, for general distribution, a more modern nomenclature for cloud forms in recognition of the growing importance attaching to clouds as signs for forecasting the weather, especially at sea. Although a great deal of labor has been given to the work and considerable advance made, a conclusion has not been reached. A solution is hoped for during the next year. The nomenclature now in use serves very inadequately any good purpose.

One thousand one hundred and eighty-five announcements of importance to navigation, an increase of 99 over last year, were published in the usual form of notices to mariners, which were issued promptly on Saturday of each week, and the circulation of which, together with the extracts, amounted to 853,590.

CANALS TO CLOSE NOVEMBER 30.

Superintendent Hannan, of the State department of public works, New York, has ordered that the Erie, Champlain, Black River, Oswego and Cayuga and Seneca canals be closed for the season on Friday, November 30th, at midnight, unless sooner closed by ice.

TO DESTROY DERELICTS.

The British press is discussing the urgent necessity of a sea patrol, formed by the maritime nations of the world, for the purpose of removing the numerous derelicts that are floating about the ocean, a constant menace to navigation. The United States as a nation is already doing its share of the work, and a number of the derelicts have gone to the bottom through the instrumentality of some of its cruisers. Too much attention cannot be paid to this matter. Vessels are leaving the ports of the world every day laden with valuable cargoes and freighted with thousands of human lives that through neglect or a want of concerted action may find a watery grave. It will be too late to wake up to the danger after a great passenger steamer has gone down, carrying with her hundreds of people and bringidg distress and sorrow to many households, as perhaps many may have gone in the past owing to colliding with derelicts. There are war vessels of every nation that might be used for purposes of destruction, not to human life, but to these waterlogged menaces to navigation.

AN OHIO SHIP CANAL.

The work of surveying the various routes for a ship canal across Ohio from lake to river is in actual progress and will soon be pushed forward on a rather extensive scale. The first party, under J. M. Deford, of Celina, assistant engineer of the State Board of Public Works, began work at Toledo last week and will run the levels southward from that city along Miami and Erie. T. D. Paul, of Akron, another assistant engineer of the State Board of Pnblic works has began work on the Ohio canal at Cleveland and will work south to Columbus and possibly beyond it. Two other parties will be organized. One of which will begin at Lockington. All will be headed by assistant engineers of the department. A route from Sandusky will also be surveyed in all probability and be included in the report which must finally be made to congress by the Committee United States engineers who have supervision of the survey work.

THE NAVY DRY DOCK CONTRACT.

Secretary Herbert gave a hearing a few days ago to contractor Gillis, who is building the big dry dock at the Brooklyn navy yard. Mr. Gillis was summoned before the secretary several months ago to show cause why his contract should not be annulled, and upon assurances which were deemed satisfactory at that time, he was permitted to continue the work on probation. Reports from the officers charged with inspecting the dock have been for a long time full of complaints, and Commodore Matthews, chief the bureau of yards and docks, has been wholly dissatisfied with the poor progress made. He has favored cancelling the contract, but Secretary Herbert has hesitated to take radical action, because he has been advised that the contractor's bondsmen cannot be held responsible, the location of the dock having been changed since the contract was made. The work is now said to be at least a year behind the contract time, and Capt. Asserson, of the New York yard, has informed the navy department that in his opinion Mr. Gillis will not be able to finish the dock within reasonable time, if at all.

It is considered almost certain that the contract will be cancelled. Naval officers interested in the matter say that Mr. Gillis was notified two weeks ago to prepare for this hearing, and that the contract would have been taken from Mr. Gillis some time ago, but it was thought better to wait until after the election.

At the conclusion of the conference Secretary Herbert withheld his decision, there being a dispute as to the facts of the case, and Civil Engineer Endicott was ordered to the New York navy yard inspect the work and report to the secretary.

LIFE-SAVERS HOSPITAL PRIVILEGES.

Supervising Surgeon-General Wyman has made these rulings on the act of the last congress extending the benefits of the marine hospital service to keepers and crews of life-saving stations :

They will be cared for in government hospitals, but not at their homes nor in contract hospitals. Dispensary relief will be given them only at dispensaries under government control. Chicago, Detroit and Evansville are the only points on or near the lakes where government hospitals are situated and they only can give the necessary relief.

Where the case demands it an ambulance will transport the patient from the dock or depot to the hospital ; otherwise he must travel at his own expense. For admission he must present a certificate signed by the district superintendent, keeper of his station or inspector of the district testifying that he is worthy: and if this is impracticable his own affidavit will be accepted.

Applicants who have been discharged from or who have left the service will not be accepted. When the stations are closed in the winter months keepers and surfmen will be admitted on the forgoing conditions. In all cases admission will be refused where the sickness or disability is not caused by employment in the life-saving service. No man will be retained in hospital longer than 90 days unless given special permission by the hospital department.

NEWS AROUND THE LAKES.

CHICAGO, ILL.

Special Correspondence to The Marine Record.

The steamer Peerless of the L. M. & L. S. Transportation Co. arrived here last Thursday morning from St. Joseph in tow of the Dunham Towing and Wrecking Co.'s tug Perfection.

The Goodrich Company's Steamer City of Racine has been taken off the route between Chicago, Grand Haven and Muskegon and is now running between Chicago and Milwaukee in conjunction with the company's steamer Indiana.

The steamer Monteagle which left Chicago at noon Tuesday bound to South Chicago to load grain, went on the reef off 47th street. The V. O. T. Co's. tug Calumet went to the assistance of the steamer during the afternoon. The wind was blowing hard from the N. W. and a heavy sea was running. There is a rocky bottom where she went on and as the water in the Lake was high, and the steamer light, she has probably gone far up on the reef.

Captain Zaccheus Sargisson, aged 60 years died November 12th at 8 a. m. at his residence, No. 402 Blue Island Avenue. The deceased retired from sailing a few months ago. The last vessel he was master of was the schooner Bertha Barnes, which he superintended the building of, and sailed for many years. He was a member of the Shipmasters' Association and was greatly respected for his integrity and uprightness of character.

The Anchor Line Steamer Clarion, Capt. Joseph Cochrane, with merchandise from Buffalo arrived here Sunday at noon in good condition. She encountered very heavy weather last Friday between Thunder Bay and Presque Isle and got a severe shaking up on Saginaw Bay. Captain Cochrane reports, seeing two schooners ashore on the east side of Washington Island, Lake Michigan, one dismasted had a poop deck, the other had her spars standing and apparently with deck load.

The tug Alpha and a sand scow were the chief sufferers by a collision in the river Monday at 1 p. m. The Alpha coming out of the draw of Lake street bridge from the south branch with three mud scows met the tug Sill going up the river towing a sand scow. The forward scow in tow of the Alpha collided with the sand scow and knocked a hole in its side, and the Alpha got a tow line in her wheel and became disabled. A driver tried for several hours to get the line out of the Alpha's wheel, but did not succeed and she went into dry dock Tuesday morning and had it taken out.

The Lehigh Valley Line steamer Tacoma which left South Chicago, Friday morning, with a cargo of grain for Buffalo ran back to Chicago after being out 24 hours. She was leaking badly and Monday morning two of the Dunham Line tugs attempted to tow her up the river to Armour's Elevator at Goose Island to have her cargo unloaded. The water in the river was low and the steamer got on the bottom at the La Salle St. tunnel at Chicago avenue and she finally brought up on the bottom in the Ogden Canal and remained there until Tuesday morning when she was finally released and taken lo the elevator.

The steamer Wyoming was docked this week for considerable new plank on bottom and recalking, the barge Genoa for some new bottom plank and calking, the steamer Boscobel for a new rudder, repairs to stern bearing and calking, the tug Commodore for a new wheel, the tug Alpha to have a line taken out of her wheel, the steamer Tacoma received a new bulkhead aft, the schooner Cuyahoga was at the derrick and had her masts and bowsprit taken out. C. H. Notler of the W. S. Bogle Co. went to West Superior Tuesday to superintend putting up the clam shell hoisting machinery built by the W. S. Bogle & Co., at the Lehigh Valley Company's new coal yard and dock.

P. H. Fleming & Co. chartered the steamer City of Berlin for 100,000 bushels of oats to Buffalo Pt. Finn Brothers chartered the steamer Charles Stewart Parnell for wheat to Buffalo at 1 cent, the steamer Monteagle for barley, South Chicago to Buffalo at 1⅛ cents. Palmer Cook & Calbick chartered the steamer Walter Vail for corn to Buffalo at ⅞ cent, the barge Baltic for corn to Buffalo at ⅞ cent, the steamer Nicaragua for 1,300,000 feet of lumber from Ashland to Chicago at $2.50 per thousand. J. J. Rardon & Co. chartered the steamer Arizona from Oscoda and the barge Plymouth from Black River both to Chicago with lumber at $1.81¼ per thousand feet.

CLEVELAND, O.

Special Correspondence to The Marine Record.

The steamers of the Mutual and Menominee lines will go into winter quarters as they arrive down this trip.

The November bulletin issued by the Light-house Board, showing all the recent changes in aids to navigation on the lakes, has just been placed in the hands of vessel men.

Mr. John F. Pankhurst, general manager of the Globe Iron Works Co., left this port on Wednesday to attend the annual meeting of the Engineer's Society, to be held this week in New York.

The Detroit line as well as the Buffalo line of passenger steamers are still running regularly on their routes, and the service will continue as long as the weather will permit, or at least up to December 1, to Detroit.

I have heard today that a responsible man wants a good propeller of about 200 tons, with a passenger license. Wonder if there is not some one who has this class of tonnage to dispose of? If so they had better write THE RECORD at this port.

Mr. Sheldon, chief-draftsman for the Globe Iron Works Co. has returned from his European tour and will carry out the work on the new twin screw passenger steamer, now under construction at the yard. One month is given as the time for launching the North-Land.

Capt. Leon, master of the schooner John O'Neill, is pleased to announce that he has made a fair season's work, winding up Nov. 10, after a rather short summer. However, as freights have ruled, and considering heavy tow bills, although with a full outfit of canvas he sailed wherever possible, the finale will prove, or at least he hopes it will, fairly satisfactory to all owners concerned. Capt. Leon is one of the most experienced and careful navigators under sail that any owner could wish to have in control of his property.

The Northland, as she is now named, will be started up this week for all she is worth in a construction sense. President J. J. Hill, of the Northern Steamship Line, has concluded to get her out in first-class style early in the spring. The only thing that I object to is the name of this craft, they might as well name her the North-wreck as the Northland, and again, all of the north land on the lakes is Canadian territory. President Hill or his advisers ought to have better taste in nomenclature or a little more patriotism.

The interest in harbor improvements still continues at this port and the river will not only be widened by the city, but Colonel Jared A. Smith, Corps of Engineers U. S. Army, will soon advertise for bids for making the cut in the west breakwater. The opening will be made about half way between the shore and the bend to the eastward, and there will be a channel about eighteen feet through that entrance, so that it can be used without danger. Although only the smaller class of tonnage are likely to take advantage of it, yet the cut will have a tendency to keep the outer harbor much cleaner and more used than heretofore.

Mr. Joseph R. Oldham, N. A. marine expert and surveyor, has just completed an interesting chart of the lake and oversea commerce of the country. The comparison is graphically shown by curves, columns and figures, in graduated scale on a chart measuring three by six feet, handsomely finished in colors. From the chart it appears that eleven and one-half million tons of shipping passed the St. Mary's Falls Canal within the last six months. If this rate of transportation were continued for the whole year, as in the Suez Canal trade, the annual traffic through the Sault Canal would amount to twenty-three million tons, which is about double the average tonnage through the Suez Canal during an equal period. In the year 1860, the value of imports and exports carried by American vessels amounted to $507,247,757. In the year 1893 the values of imports and exports carried in American vessels had fallen away to $197,765,507. The tonnage passing through the Sault Canal in 1860, aggregated 409,657 tons. Up to Oct. 31, 1894, the tonnage passing through the canal reached the unprecedented total, in this year of general depression, of 11,748,986 tons. Assuming that the trade of November will be about eqnal to the average of recent years, the tonnage of freight passing through the Sault Canal will reach 13,500,000, or, in other words, has increased more than thirty-fold since the beginning of the civil war. It is lamentable to observe, at the same time, that American imports and exports, carried in American vessels, have fallen from 66.96 per cent. to 11.54 per cent.

DETROIT, MICH.

Special Correspondence to The Marine Record.

The Riverside Iron Works, Samuel F. Hodge & Co., had the Newaygo at their docks this week for repairs to her cross-head.

It is rumored here that the Detroit Dry Dock Co. are likely to build a new passenger steamer for the Cleveland & Buffalo Line.

The Detroit Dry Dock Co. have had the steamer A. G. Lindsay and the ferry steamer Victoria at their docks this week for survey and repairs.

The keel for the new steamer to be built to the order of C. R. Jones & Co., Cleveland, has been laid at the yards of the Detroit Dry Dock Co. and work will be pushed on her until she is completed.

The steamer Maud Preston was libeled Monday at this port on three claims, the largest being for a coal bill in favor of J. & T. Hurley of $13,000. The others are for supplies and the aggregate is about $14,000. The boat was bonded and released and is making her regular trips.

The lighthouse board Wednesday, awarded contracts for lumber, bolts and washers and steel plating for constructing five cribs for lights in Hay Lake Channel, St. Mary's River, Mich., as follows: For lumber, J. B. Sweatt, Sault Ste. Marie, $3,319; for bolts and washers, P. M. Church, Sault Ste. Marie, $262; for steel plating, Fulton Iron and Engine Works, Detroit, $209.

While the schooner B. L. Pennington was discharging at the Sanborn elevator, Port Huron, about three months ago, George Taylor, a fireman in the elevator, fell head first into an open hatchway when walking across her deck, and for five days lay unconscious. He has sued the schooner for $5,000 personal damages, claiming that he has never fully recovered and that the schooner's crew neglected their duty in leaving the hatchway uncovered.

United States Judge Swan has held the steamer Atlantic responsible for the sinking of the steamer Isabella J. Boyce off Marine City, May 16, 1892. The Boyce, bound down with three schooners, signalled the Atlantic, which was a mile astern, that she was going to round to at Marine City. When half a mile apart the Boyce blew one whistle but was not answered. The Boyce began to round to and blew another blast, which was answered by the Atlantic. The Boyce was well on the Canadian shore and the Atlantic in midstream. The latter did not change her course until abreast of the first tow-barge or check her speed till she was within two lengths of the Boyce. Then it was too late and the collision occurred. Judge Swan holds that it was the duty of the Atlantic under the conditions stated to keep out of the way of the Boyce, and he also held that it was the duty of the Atlantic to notify the Boyce that she intended to pass the Boyce, and such omission was clearly a factor in the collision. This ruling probably obtained on the ground that the Atlantic was the overtaking ship and ought to have kept out of the way, although the Boyce had her on her own starboard side.

MILWAUKEE.

Special Correspondence to The Marine Record.

A scow loaded with brick in tow of the tug Crosby capsized about thirty miles off this port on Friday last. A man name Frand Leland, who was on the scow, was drowned by the accident. The crew of the tug used every effort to save the man, but were unable to render him any assistance. The scow was loaded with 220,000 brick. After the Crosby had lost the scow she proceeded along to this port where she arrived all well.

The Sheriffs Manufacturing Company supplied the steamer Helena with a new rudder, pintle and repaired her stern bearing on Saturday whilst the steamer was in the Milwaukee Dry Dock Co.'s dock. The Sheriffs

wheel 12 feet diameter, put on the steamer Frank L. Vance when in port last trip has increased her speed 2 miles an hour, running light, over her former wheel, so Captain Eugene Marquete says in a letter to the Company from Escanaba. The 10 feet diameter Sheriffs' wheel recently put on the steamer Pentland has increased her speed one-half mile per hour with the same amount of fuel. The Sheriffs' steam steerer on the Pentland works very satisfactory and her owner is much pleased with it. The 11 feet diameter Sheriffs' wheel put on the steamer Chicora of the Graham & Morton Line in September, last increased her speed 1½ miles per hour, over her former wheel, with the same number of revolutions,

LAUNCH OF THE ST. LOUIS.

The William Cramp & Sons' Ship and Engine Building Co., Philadelphia, Pa., launched from their yards on Monday, the large Atlantic Liner, St. Louis, built to the order of the International Navigation Co.

The launch was witnessed by fully 50,000 people. Mrs. Cleveland, wife of the president, broke the traditional bottle of champagne on the bow of the noble ship, at the same time uttering these words: "I christen thee St. Louis."

Charles H. Cramp, in his speech of welcome to President Cleveland, said that with two exceptions the St. Louis is the largest and most powerful ship in the world. He referred to the progress of shipbuilding under Cleveland's administration and credited to his policy the fact that such wonderful results have been accomplished in America. The St. Louis, he said, is built on American plans by American workmen and of American material. Twenty-six ships were recommended by Mr. Cleveland and authorized by congress. Concluding he said that while there may be honest differences on other questions national approval of Mr. Cleveland's vigorous and patriotic naval policy will always be unanimous.

At the conclusion of Mr. Cramp's speech, President Griscom, of the International Navigation Co., proposed the health of the president of the United States. President Cleveland, in responding, said:

"I would not be entirely frank if I did not acknowledge the extreme personal satisfaction afforded me by the reference just made to the part which fell to me as a high duty and privilege in the great work of creating an American navy and at the same time stimulating American shipbuilding. We shall fail to realize the real significance of what we haye seen to-day if we overlook the fact that the causes of our congratulation reach beyond actual accomplishment and are not limited to the things already done and within our sight. While we may well be proud because we have launched the largest and most powerful steamship ever built in the western hemisphere and with two exceptions 'the largest and most powerful in the world,' and while we may feel reason for additional pride in the fact that, in spite of general economic untoward conditions not encouraging to such an achievement, this great vessel has been built on American plans, by American mechanics, and of American materials, yet we must not forget that our greatest cause of congratulation is found in the hope and promise these incidents furnish of the revival and development of American commerce and the renewed appearance of the American flag in foreign ports. I hope I shall not be accused of making a suggestion calculated to mar the gratification which this occasion inspires if I remind you the ship we have just launched was built in fulfillment of conditions imposed in consideration of the relaxation of our registry laws. Commerce is the life-blood of a nation and no country that loses or impoverishes it can reach and maintain a commanding position among the nations of the earth. Our flag not only tells of our existence, but it is symbol of all that American institutions represent."

In conclusion, President Cleveland said: "Since my participation in re-building our navy during a former official term has been so flatteringly referred to, I hope it is not amiss for me to say that I shall deem myself especially fortunate if in time to come it can be said that I have done something during my present incumbency to aid in the freedom and extension of American commerce and the consequent further growth of Ameritan shipbuilding."

The St. Louis is chiefly remarkable in that she is the first modern merchant marine structure of anything approaching her dimensions built in the United States. She will also be the pioneer in what promises to become in time a spirited contest between the present English-built ocean grey-hounds and those which will be turned out from American shipyards. The work of constructing the St. Louis was begun by the builders on July 27, 1893. More than 6,000 tons of steel have already been worked into the mammoth steamer, which, when completed, will exceed in length and tonnage both the New York and Paris and equal that of any other great transatlantic liner. Her length over all is 554 feet 2 inches; length between perpendiculars, 535 feet 8 inches; extreme breadth, 63 feet; molded depth, 42 feet; number of decks, 5; depth of water bottom, 4 feet; number of principal water-tight compartments, 17; distance of collision bulkheads abaft of stem, 33 feet.

After the vessel has been towed back to the docks the work of putting in her engines will begin. These are of the quadruple expansion type and are expected to develop not less than 20,000 horse power. Each of the two engines will have four cylinders of 30, 50, 71 and 100 inches diameter, by 60 inches stroke. The steam to keep the big engines going will be supplied by a battery of six double-ended boilers, each 20 feet long and 15 feet 17½ inches in diameter. The steam pressure is to be about 200 pounds to the square inch. The engines of the new ship, when completed, will be the largest of the quadruple expansion type in the world. The crank shafts, connecting rods and steering gear will be made of the finest ingot steel. In order to come up to the builders' contract with the owners, these engines will have to send the St. Louis through the water at the rate of at least twenty knots an hour under ordinary seagoing conditions. The steering apparatus will be of the screw-gear type, with Williamson Bros.' steam and hand steering engine. The hull is of steel of the best quality.

When completed the St. Louis will have accommodations for passengers as follows: First cabin, 320; second cabin, 200; steerage, 850; crew and employes, 400; total 1,770. The complement of officers, seamen, engine room and fire room attendants will be about as follows: Captain, 1; officers, 6; seamen, 48; firemen, 120; engineers and machinists, 30; oilers, 30; stewards and cooks, 124; stewardesses, 16; chefs de cuisine, 2; mail clerks, 2; doctor, 1; purser, 1; printer, 1; total, 381.

The gross register of the St. Louis will be 11,000 tons. She will differ materially in appearnnce from the Paris and the New York in that she has a straight instead of curved stem and carries but two funnels and two masts.

Besides the main propelling machinery there are forty-nine auxiliary engines in the ship. Some of these are employed in connection with the main engines, for such purposes as pumping water or air, or for driving blowers for forced draught. Others are used for steering the vessel and for handling the anchors. Twelve engines are used for lighting and ventilating the ship independent of the propelling machinery.

THE NEW NAVY.

In the annual report of Geo. W. Melville, Engineer-in-Chief U. S. Navy, Chief of Bnreau to the Secretary of the Navy, the contract trials of the new vessels added to the Navy, are spoken of as follows:

"Since my last annual report, five new vessels have successfully completed their contract trials, and three their dock trials.

The Marblehead and the Montgomery were tried over a measured course in Long Island Sound; the Olympia, over a similar course in Santa Barbara Channel, and Columbia and the Minneapolis off the coast of New England, over a measured course between Cape Ann and Cape Porpoise.

While all of these vessels made very successful trials, the greatest interest centered in the Columbia and the Minneapolis, from the fact that they were the first ships of any country propelled by triple screws, in which a requirement of more than 20 knots an hour was stipulated, and from the fact that the maximum power for which they were designed was greater than that of any war ship afloat or projected at the time, and greater than that of any transatlantic steamer then in service. The fitting of triple screws in these two vessels was brought about by the peculiar conditions of the design of the ship—to be of moderate dimensions, with large coal capacity and exceptional power in order to reach a maximum speed of 22 knots.

At the time the design was made, there was nothing of an experimental character, except on a very small scale, to indicate the relative efficiency of propulsion by two and three screws, but the generally recognized opinion was that three screws would be less efficient than two; and working on this theory greater power was given these ships than was found to be necessary for the designed speed, with the result that the Columbia and the Minneapolis stand unrivaled and unapproached in point of speed by any naval vessel afloat, except those of the torpedo boat class. Although the design was looked upon by many as too big an experiment to make, the success of it has fully vindicated the jndgment of the Bureau, and paved the way to greater speed in transatlantic steamers; for I am convinced that if the ideal five-day steamer becomes a reality, she will be one with triple screws, and that it is in this direction we must proceed if we expect to make an increase in the speed of large cruisers.

After the completion of the official contract trial of the Minneapolis, an attempt was made during the return of the ship to Philadelphia to make trials with one, two and three screws, in order to determine approximately the relative economy of propulsion at a given speed; but owing to weather conditions, which necessitated slowing and stopping of the engines, and the fact that the speed had to be measured by patent log, the results could not be accepted as at all near what might be expected in service; so the only way in which the most economical method of propulsion at cruising speed can be obtained is from actual trial of these ships in service; but it is probable that for speed of 12 knots or more, two screws will be more economical than one.

While the extraordinary speed of the Minneapolis and the Colmubia has, in a measure, overshadowed the results obtained by the other vessels, all of them have been remarkably successful, and the Olympia especially so, her speed of 21,686 knots for four consecutive hours being remarkable for a vessel of her size, when her fighting qualities and her endurance are considered.

In the Minneapolis, the Columbia, the Olympia, and the New York we have produced a quartette of cruisers which, in point of speed, is unequaled by a like number of ships of any navy in the world. Their trials were most exhaustive, and the results such as to leave absolulely no doubt as to the real speed. Subsequent examination of the machinery failed to disclose any weakness or defect of any nature whatever in the machinery.

The machinery for the Texas having been so far completed as to permit of trial, and the final completion of the ship being so remote as to cause embarrassment to the contractors if the trial of the machinery should be delayed until after the completion of the ship, a dock trial was made at the Norfolk navy-yard to determine whether the machinery was well built and strong enough to withstand the strains which would be put upon it during the official trial prescribed by the contract. The requirements were that each main engine should be run separately for four hours in conjunction with one-half the boilers, that the full boiler pressure should be maintained, and that the average mean effective pressure in the cylinders should be equivalent to 37 pounds when reduced to the low-pressure cylinder. The trials were successful.

The machinery of the Cincinnati and the Raleigh having been built and erected in the navy-yard, these vessels were put in commission before the machinery was tried. Since going into commission both have had satisfactory dock trials, and have had preliminary trials in free route, which indicate that they will prove to be two of the fastest vessels of their class afloat.

The torpedo boat Ericsson has steamed from Dubuque, Iowa, to New London, Conn., where she is undergoing preliminary trials preparatory to her official trial in Long Island Sound. The results thus far obtained indicate that she will make about 25 knots an hour.

The armored cruiser Maine, whose dock trials were recorded in my last annual report, is about ready for her official trial.

The detailed results of the trials of the vessels herein mentioned are given in accompanying tables."

A FIRE EXTINGUISHER.

In a letter to this office the well known firm of Messrs. Randolph & Clowes, Waterbury, Conn., states as follows:

"Knowing from the statistics and records of the insurance interests that the losses of property by fire are increasing each year and that a glance at the figures will convince any rational mind that some safeguard must be at hand for instant use in cases of incipient fires, and that the net loss represents just that much of the country's wealth gone and not recoverable, we have decided, after mature investigation, to place upon the market the Guardian Fire Extinguisher with our full approval as to its reliability, durability, simplicity, practicability and effectiveness. During our business experience we have come in contact with and been called upon to manufacture dozens (of different designs and character) of portable hand fire extinguishers, but in none of these devices could we find the essential points which we consider necessary to a practieal and reliable extinguisher. In the Guardian Fire Extinguisher, however, every important and most essential feature is found, and we are certain, from the large market for inferior and unreliable apparatus of this kind, we have no apology to offer for making the Guardian Fire Extinguisher one of the products of our brass and copper mills, knowing that any purchaser of the Guardian Fire Extinguisher will receive full value for his money and a reliable extinguisher, even though it stands charged for years. To the merits and worth of the Guardian Fire Extinguisher we especially call the attention of all insurance companies, railroad and steamboat interests, managers and directors of public institutions, and in fact any interest where there is property liable to loss by fire, and stand ready to sustain all claims made for it."

U. S. REVENUE STEAMER CALUMET.

(ILLUSTRATED.)

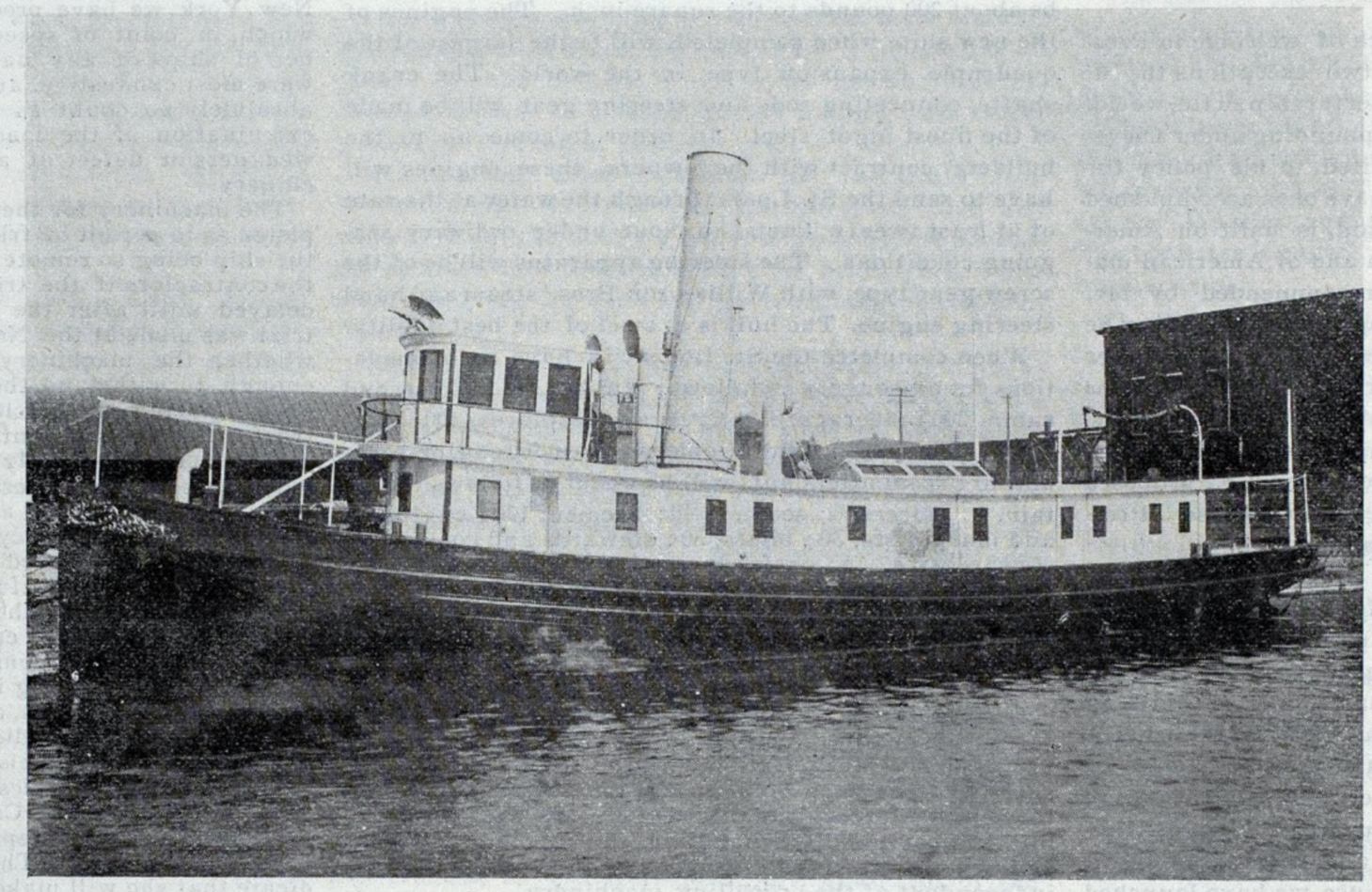
The U. S. Revenue Steamer Calumet due to arrive at Chicago this week is a handsome and powerful little craft to be used by the boarding officer at that port in the interests of the revenue department.

The general dimensions of the Calumet are 94 ft. 6¼ in. over all, 87 ft. on water line, 20 ft. 6 in. moulded beam and 10 ft. 3 in. deep. All steel is used in her hulls and it was inspected at the mill by the government surveyor. Her scantlings are extra heavy. The weight of plating, frames, etc., was allowed but 5 per cent variation from specifications. House on deck is 62 ft. 10½ in. long, and the exterior finish is in panel work. The engine room and pilot house are finished in black walnut, cabin, state-room and inspector's room finished in hard woods. Galley has caboose, etc. The boat is heated throughout by steam. Treasury coat of arms on stern, Eagle on pilot house and scroll on bows, a la "Uncle Sam."

The engine is of the fore and aft compound inverted direct acting type, with open front slipper guide, diameter of cylinder 18½x32 in. by 26 in. stroke Slide valves, low pressure, double ported. The bearing for thrust of the horse shoe type, wheel 8 ft. diameter by 12 ft. 6 in. pitch. The boiler was built by Chas. Ward of Charleston, W. Va., of the upright water tube style of which he is the patentee. The surface condenser is from the Wheeler Condenser and Engineering Co. of New York Fire and feed pumps from the Blake Steam Pump Co., through J. H. Ruckel & Co., of Buffalo. The steam gauges have been supplied from Ashcroft Mfg. Co. of Boston.

On the trial trip the Calumet was out for nearly five hours. The engine was not checked once during the entire time, using all of the steam the boiler could make and without the slightest journal heating. The government officials from Washington were much pleased at her performance saying that it was the most successful trial trip, they had witnessed.

The Calumet was constructed from plans and under the general supervision of Capt. George W. Moore, Supt. of Construction and Mr. John W. Collins, Chief and Consulting Engineer of the Revenue Marine Department, and lef Buffalo for Chicago under the command of Lieut. John Dennett.



THE U. S. REVENUE MARINE S. S. CALUMET.

A LONG LAKE TRIP.

The schooner Mineral State arrived at Racine, Wis., Sunday, three months after she loaded her cargo of coal at Toledo, O. She loaded at the latter port August 9, taking 617 tons. Before she could get out of the harbor she was attached for bills from a shipyard and a tug line, amounting to $3,039. The laws' delays held her until October 15, when she was sold to Capt. F. R. Straight at marshal's sale for $1,140. She sailed October 25, and on November 2 was caught in a storm and driven aground off South Manitou Island. After jettisoning 100 tons of coal she was released, and a bill from the tug Shook and steamer Susie Chipman for $700 was presented. She leaked badly, but got into Milwaukee harbor during the storm Saturday night, and reached her destination at Racine Sunday. The damages are placed at $500, with no insurance. She will lay up and winter at Racine.

LAKE WHITE FISH.

"It amuses me to hear people give reasons why the whitefish of the Great Lakes refuse all forms of bait," said the captain of a West Superior whaleback. "They have a thousand explanations, and some of 'em are ingenious; but there is one drawback to the whole lot—they ain't true. Such talk always reminds me of Josh Billings' saying, that 'it ain't worth while fur a man ter know such a heap er things that ain't so.' As a matter of fact, the whitefish of the Great Lakes do bite, and bite often and bite hard. They are as good fun to catch as they are to eat, which is saying a good deal. I've got two boys that can go out in the bay opposite the house up there at Superior, and in half an hour land a good string of whitefish. But not every fellow who slings a hook and line into the lakes can catch whitefish.

"Down York State way they call the same fish Otsego bass, and at Cooperstown, where I was raised, we used to catch all we wanted with hook and line, that is, when we didn't spear 'em at night, that bein' easier. I've seen 'em taken on raw beef, on live flies and bugs, on the artificial fly, on worms and on live minnows. But the real fetchin' things that gets 'em when all the rest fail is lumps of bread or flour paste mixed with flax to keep it from washing away. The main thing to bear in mind is that the whitefish has a very small mouth, and so none but a little hook will strike him. A light tackle is used, for they are tender fish, and though lively enough do not fight very hard. The hooks are never larger than the sizes used for brook trout, and an old friend of mine who catches a good many of them always used a No. 9 Sproat single gut-snelled hook. He generally gets what he goes for, too, that man. Up in the Sault Ste. Marie, where the water is swift, and at the mouth of the canal, I often see some very good ones caught with artificial flies. One of the lock-keepers, an old one-eyed Scotchman, has the best luck generally, and he only uses one fly, which he calls the soldier. My boys always use little live shiners or a piece of a large dead one, for the bait has to be small for the ridiculously tiny mouths these big fish have.

"In spite of set-nets, seine haulin' and the attacks of the lake trout, which kill thousands every season, the supply does not as yet diminish. Lake Erie is fairly filled with fish traps and pounds, so that I often wonder that any fish of any sort are left. The big supply has cut the price down to two or two and a half cents per pound."

A NEW PACIFIC STEAMSHIP LINE.

It is reported that John D. Rockefeller and the Standard Oil Co., have induced the Amoor Steamship Co. to be operated in connection with the Trans-Siberian Railway, to locate the terminus of its trans-Pacific line at Everett, Wash., in which town Rockefeller is interested. The same authority says arrangements have been made in New York to start the line immediately, and that the new whaleback steamer City of Everett will be operated at Vladivostock, carrying building material for the eastern end of the trans-Siberian road. The Great Northern Railway, president, J. J. Hill, is supposed to be a factor in the business. As the western terminus of the road is at Everett, so also is the whaleback shipbuilding plant.

RACING AND CUP DEFENDERS.

It would appear that British yachtsmen are not going to have things all their own way next year as they came very near doing in the last race sailed in English waters. Howard Gould has just given the Herreshoffs an order for a crack racing yacht and she is to be ready early in April to cross the Atlantic and sail against the fleet of British twenty-raters.

"Judging from my experience on the other side," said Mr. Gould, "I believe there is a good deal of fine racing to be had in this class, and I am going over to try it with a boat of my own. I have told the Herreshoffs that I want the fastest boat of that class they can turn out. Her design is not all complete yet, but roughly speaking, her over-all length will be about sixty feet and she will be about forty-five feet on the water line. She will be a fin-keel boat, with the fin made of Tobin bronze and with about fifteen tons of lead in the hull. She will draw about ten feet of water. She will have oak frames and mahogany planking. I intended at first to have her built of Tobin bronze, but I was advised not to do so, as it would not be of any special advantage in a boat of that size. The designing will be left entirely with the Herreshoffs, and I expect they will produce a boat fast enough to furnish some good sport when she is ready."

Howard Gould intends to sail for England in about a week and to remain over there all winter. When his yacht is ready she will be shipped on the deck of a trans-atlantic steamship. The Tobin bronze fin will be fitted here, then unshipped and sent on the steamship with the yacht, to be bolted on when she reaches the other side.

At the same time it is cabled from London that Lord Dunraven and George L. Wilson have determined to beat America at her own game so to speak, by building a yacht as a new challenge for the America's cup designed especially for the International course off Sandy Hook and without reference to the requirements of English waters or English weather.

While the new yacht will not show any radical departure from the lines of the Valkyrie and the Britannia in the matter of the form of her hull, she will, nevertheless embody the new ideas taught by the Valkyrie's failure in 1893. In surface power she will not differ greatly from the Britannia, although she will be a trifle longer on the water line. She will also carry more sail, and probably a smaller amount of lead as the design of the keel will be two feet deeper than the keel of the Valkyrie and very possibly more, thus giving her a draught of about 21 feet.

The principle is that with a longer keel than either the Valkyrie or Britannia and in order to carry increased sail with a decreased amount of lead, the weight will be concentrated considerably lower down. This feature is the chief novelty of the new boat. Even if more weight be used, however, the difference in the weight of ballast between the new boat and the Valkyrie will not be more than two tons.

The increased sail will bring the sail area up to, and possibly beyond that of the Vigilant. It is evident a lesson has been learned from the official quoted remark of Mr. Islin, that the Vigilant was built for the sole purpose of retaining the America's cup and therefore was adapted primarily to the conditions of the Sandy Hook course. Nor has the success of Mr. Herreshoff's 10-rater, the Dakota, on the Clyde last season been lost on either Lord Dunraven or Mr. Watson.

It is expected the challenge for the America cup will be forthcoming within the next fortnight.

THE Siesta, a steamer of 213 tons hailing from Port Huron and built at St. Clair, Mich., and the 9 ton craft Favorite built at Vermillion, O., for Sandusky owners, were the only two new lake vessels registered at Washington last week.

ANNUAL REPORT OF THE CHIEF OF NAVIGATION.

Admiral Ramsey, Chief of Navigation, in his annual report shows that during the year the naval ships Columbia, Cincinnati, Raleigh, Atlanta, Marblehead, Montgomery, Essex, Machias, Castine and Alert have been commissioned for service. The Lancaster, Alliance, Machias, Marion and Boston have since been put out of commission. The Kearsarge was wrecked February 2, 1894.

In the fiscal year 3,964 men and 561 apprentices were enlisted or re-enlisted in the navy—815 men on board of cruising ships, 2,909 men and 561 apprentices on board receiving ships and at ports where there are naval stations, 149 men for the coast and geodetic survey and 91 men for the vessels of the Fish Commission; 2,151 men and 1,301 boys, candidates for enlistment on board of the receiving ships, were rejected for physical disqualifications, and 7,156 men and 185 boys were rejected for other causes; 2,819 men and 341 apprentices were discharged—2,194 by reason of expiration of enlistment, 162 for disability, 153 by reason of services being no longer required, 264 at their own request, 48 by purchase, 50 by request of their commanding officers, 118 for bad conduct, 20 on account of illegal enlistment and 151 for inaptitude. Seven hundred men and 220 apprentices deserted during the year. Of this number 549 men and 194 apprentices deserted in home ports. Forty-eight men and 21 boys died. The number of enlisted men serving under continuous service certificates June 30, 1894, was 1,824. Five thousand six hundred and fifty-nine dollars and one cent have been paid to enlisted men in prizes for target practice with great guns, machine guns and small arms.

The cruising record of all the ships presented by Admiral Ramsey indicate the unusual activity of the navy last year. The Bennington holds the pennant for distance covered, having cruised 32,701 knots, including her great run from the Mediterranean to San Francisco. Some of the records of other vessels in knots are as follows: Yorktown, 30,831; Concord, 25,934; Ranger, 22,917; Alliance, 17,417; Petrel, 16,781; Lancaster, 15,191; Charleston, 14,657; Philadelphia, 14,512; Portsmouth, 14,039; San Francisco, 13,773; Adams, 13,638; Monongahela, 13,116; New York, 12,514; Baltimore, 12,231; Chicago, 11,879; Detroit, 10,864 and Marion, 10,829. Secretary Herbert cruised 1,991 knots on the Dolphin.

SURVEYS OF GEORGIAN BAY.

Much credit is due to the Marine department of Canada for the energetic and excellent work carried on during the past several years in the careful survey of Georgian Bay and its coast line originally commenced by Commander Boulton and which has this season been completed by the marine hydrographer after 11 years' work costing $193,546.

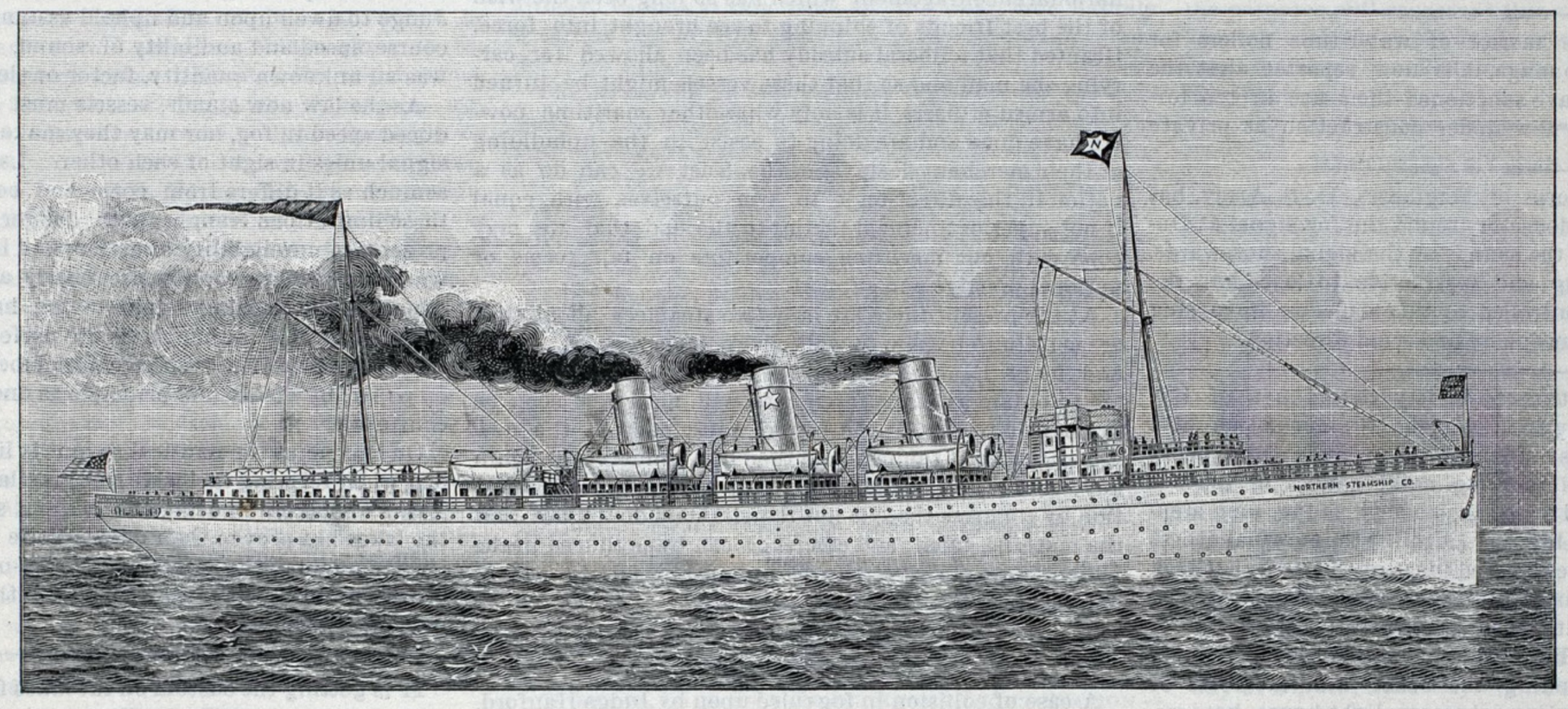
This season the survey steamer Bayfield, has been engaged nearly the whole time in Nottawasaga bay, except for a portion of the time, when triangulation has carried on along the south shore of Manitoulin island with a view to the future extension of the survey work into lake Huron. Arrangements have also been made for putting in 32 buoys on lake Nipissing next spring. The suggestion has also been made to the marine department to dam the four outlets of the French River from lake Nipissing, by which a uniform depth of water in the lake would be secured. This would be a great benefit, for in the fall the lake is about six feet lower than in the spring. The construction of the dams would not give rise to any claims for land damages, as in the spring the water reaches a point two feet above that which would be given by the dams. It is positively shown that the change would be of great benefit to the lumbermen and vessels trading on the lake.

THE TWIN SCREW STEEL STEAMER NORTH-LAND.

[ILLUSTRATED.]

The North-West having been so much of a success, President J. J. Hill of the Northern Steamship Co. has now given instructions to Manager Gordon of Buffalo to carry out to completion work on the steamer North Land and to make her in every particular a sister ship to the one first launched from the yards of the Globe Iron Works Co., Cleveland, O.

With the cut of the new boat, we herewith, even at the risk of a repetition of figures give the general dimensions and equipment of the new steamer. Her length over all is 383 feet, keel 360 feet, beam, molded 44 feet, molded depth 26 feet, gross register tonnage 4,244. Engines quadruple expansion, two sets, with cylinders 25 inches, 36 inches, 51½ inches, and 74 inch diameter by 42 inch stroke, each set of 7,500 H. P. Twenty-eight "Belleville" water tube type of boilers, working at 210 pounds pressure of steam. The speed is to average twenty miles an hour and the steamer is exclusively for passenger service to cost about $600,000.



PASSENGER STEAMER NORTHLAND.

NOTICE TO MARINERS.

UNITED STATES OF AMERICA—NORTHERN LAKES AND RIVERS—MICHIGAN.

PORTAGE RIVER RANGE LIGHT-STATION.—Notice is hereby given that, on or about November 15, 1894, two fixed white tubular lantern lights will be established to form an open range for entering or leaving the river at the entrance from Portage Lake into the head of Portage River, Keweenaw Peninsula.

The front, or northerly, light, will be shown at a height of 8 feet above the mean level of the lake from a small, square white lamp-house, on a crib. In connection with the lamp-house there is a pyramidal day mark, of which the lower part is open and the upper part sheathed, rising 23 feet above lake level.

The rear, or southerly, light will be shown at a height of 8 feet above the mean level of the lake from a small, square, white lamp-house, on a crib, located about 1,650 feet S. 18° E. (S. by E. ⅝ E.) from the preceding.

Bearing is true.

By order of the light-house board.

JAMES A. GREER,
Rear-Admiral, U. S. Navy, Chairman.

Office of the light-house board, Washington, D. C., November 10, 1894.

INSTRUCTIONS TO MASTERS OF STRANDED VESSELS.

As the fall storms are again upon us it would be well for those engaged in active service on the lakes to "take aboard" the rocket apparatus regulations, always remembering that on an exposed coast or where broken water has to be gone through to reach the beach it is always best when a life-saving corps is at hand to stick to the vessel instead of making ill-advised if not frantic effors to land by the aid of appliances aboard ship.

In the event of a vessel stranding on the coasts of the United States and the lives of the crew being placed in danger, assistance will, if possible, be rendered from the shore in the following manner, namely:

1. A rocket or shot with a thin line attached will be fired across the vessel. Get hold of this line as soon as possible, and when you have secured it let one of the crew be separated from the rest, and, if in the day time, wave his hat or his hand or a flag or handkerchief; or if at night let a rocket, a blue light or a gun be fired, or let a light be displayed over the side of the ship and be again concealed as a signal to those on shore.

2. When you see one of the men on shore separated from the rest, wave a red flag or (if at night) show a red light and then conceal it; haul upon the rocket line until you get a tail block with an endless fall rove through it.

3. Make the tail of the block fast to the mast about fifteen feet above the deck, or if the masts are gone, to the highest secure part of the vessel. When the tail block is made fast and the rocket line unbent from the whip let one of the crew, separated from the rest, make the rignal required by Article 1.

4. As soon as the signal is seen on shore a hawser will be sent to the whip line and will be hauled off to the ship by those on shore.

5. When the hawser has been got on board the crew should at once make it fast to the same part of the ship that the tail block is made fast to, only about eighteen inches higher, taking care that there are no turns of the whip line round the hawser.

6. When the hawser has been made fast on board, the signal directed to be made in Article 1 is to be repeated.

7. The men on shore will then pull the hawser taut, and by means of the whip line will haul off to the ship a sling life-buoy, or life-car, into which the person to be hauled ashore is to get and be made fast. When he is in and secure, one of the crew must be separated from the rest and again signal to the shore, as directed in Article 1. The people on shore will then haul the person in the sling to the shore, and when he has landed will haul back the empty sling, life-buoy or life-car to the ship for others. This operation will be repeated until all persons are hauled ashore from the wrecked vessel.

8. It may sometimes happen that the state of the weather and the condition of the ship will not admit of a hawser being set up; in such cases a sling life-buoy will be hauled off instead and the shipwrecked persons will be hauled through the surf instead of along a hawser.

Masters and crews of stranded vessels should bear in mind that success in landing them in a great measure depends upon their coolness and attention to the rules here given.

The system of signaling must be strictly adhered to, and all women, children and helpelss persons should be landed before the crew of the ship.

THE MARINE RECORD

ESTABLISHED 1878.

PUBLISHED EVERY THURSDAY, AT 144 SUPERIOR ST., (LEADER BUILDING), CLEVELAND, O.

IRVING B. SMITH, CAPT. JOHN SWAINSON, } . . . PROPRIETORS

BRANCH OFFICE:

CHICAGO, ILL., ... 179 LaSalle Ave.

THOMAS WILLIAMS, Associate Editor.

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CLEVELAND, O., NOVEMBER 15, 1894.

IT is difficult to believe that so costly and important a work as the New Canadian "Soo" canal is a perfect botch, yet the New York *World* uses about a column of space this week to prove that such is the case.

RECOGNIZING the merits of water-tube boilers for small sized speedy tonnage, it is now reported that the British Admiralty have sanctioned their use in ten torpedo boat destroyers now under construction at private shipyards.

MAJOR ADAMS, Corps of Engineers, U. S. Army, has had placed a sound deflector around the fog signal at Duluth so as to deaden the sound of the signal shorewards. It will be interestiug and instructive to learn how the sound waves are controlled by this deflector in varying conditions of the atmosphere and wind direction.

NOW it is learned that the society young men of Bay City, Mich., are going to undertake the formation of a Naval Reserve Corps. Well, in the event of their being no more suitable "timber" to make sailors of in that locality we are glad to see the society young men stepping in to fill up the breach. Against the enternal fitness of things and all preconceived ideas of the stuff that jack tars require to be made of, the Detroit Corps covered itself with glory in its recent annual drill aboard the U. S. S. Michigan and Bay City society men can do equally as well, notwithstanding the belief that members of the life saving service, fishermen, light-house keepers, yachtsmen, boatmen, tugmen, longshoremen and seamen as well as officers of freight and passenger steamers would form the best rank and file for a Naval Reserve Corps, the main question after all is to get the corps organized and then by a liberal annual retaining fee awarded to each member out of the funds placed at the disposal of the navy trust to "the survival of the fittest" in bringing up the esprit de corps of the Naval Reserve to that of other maritine nations.

THE present outlook for fall navigation compares favorably with that of other seasons and there is no reason to suppose that ice will prevail to any greater extent or any earlier than on former occasions. The large number of boats that may lay up on the 15th to secure a rebate on their season's insurance, will no doubt give later carriers a fair show to earn paying freights, and we would not be surprised to see four-cent wheat from the head of the lakes if this weather continues, as it is not unlikely to do. There is certainly ore to come down yet from Lake Superior and all vessels under contract or otherwise engaged in this trade will give grain carriers the advantage in point of better freights. It of course costs more, and greater risks are taken to transport cargoes in heavy weather than during the summer months and those owners who have the temerity to risk their valuable tonnage in sailing up to the close of navigation heartily deserve all that they can win out of the venture and enterprise. Though we find a general conservative spirit in this direction at present, and some who have run late in former seasons will this year lay up their boats, still there are other well-known and reliable owners that will realize all that there is to be taken out of the season.

THE ATLANTIC FERRY.

With the completion of the large steamers St. Louis and St. Paul, the United States will have an Atlantic line of passenger steamers second to no other fleet in the world. It is true that even with the addition of these last two boats there will be no record-breaking passages made, chiefly we presume on account of the large American line sister ships having been designed prior to the time when anyone knew what the Cunarders would work up to, although their power was known to be in excess of that of the St. Louis and St. Paul.

The successful launching of the St. Louis, on Monday, may be regarded as an event of national importance and altogether different from the fuss made in hoisting the stars and stripes over the old Inman liners when permitted registry by act of Congress. These former ships were built abroad and worked up to their highest efficiency by foreign skill and kept at that point chiefly with the assistance of foreign engineers, who were taken over with the tonnage, as engineers were not then regarded as being ships' officers. With the advent of the new fleet a different ruling will obtain, and we may then point with pride to Atlantic "greyhounds" designed, built, equipped and manned by Americans, an achievement which marks a new era in the course and progress of the American mercantile marine.

The International Navigation Co. has been given that national encouragement which has so long been the wish of the best friends of shipping to see brought into force. Granted that a liberal subsidy has been allowed for carrying the mail and so that these vessels might be turned into armed cruisers, it is only what other maritime powers have done and are doing to assist in the upbuilding of their merchant fleets and the least we can do as a nation in this direction is to arm ourselves with equal if not superior financial tactics to the end that we may cope with our maritime competitors on fair terms of national prestige and support.

At the present there are only two steamers afloat that are certain to be able to walk away from the St. Louis and the St. Paul. This feature will not long be permitted to obtain as other foreigners will no doubt soon be in the field to contest the partial supremacy of the new American built tonnage and then our builders will again have to look to their laurels, yet, if given due appreciation by congress there is not the slightest doubt but that the material, talent and efficiency can by produced in the United States to rival the workmanship carried out in other countries.

AN ASININE RULING.

A case of collision in fog ruled upon by Judge Hanford, district court, D., Washington, N. D. as given in a recent issue of the Federal Reporter, shows a great lack of pertinency or knowledge of the rules governing the conduct of steamers in fog.

Judge Hanford first wrongly assumes that steamers may proceed at full speed in a dense fog, and this too in the case of a steamer traveling over the ground at a rate of eighteen to twenty miles an hour, instead of supporting Article 16 of the Steering and Sailing rules, which states that "every vessel shall in a fog, mist, falling snow or heavy rain storm go at a moderate speed." The Judge next errs in presuming that a steamer traveling on a certain route should always be found heading a direct course between the two ports, viz.: her ports of departure and destination, which is again wrong, for the master of a steamer, or any craft in fact, is not debarred in so far as the "rules of the road" are concerned in making circles between ports, if he desired to, and no passing craft has any right to dictate or assume that the vessel is off her course or being negligently navigated. In this case the Judge ruled that the master of one boat knew the route and direction of the other, therefore they could pass safely under full speed in a dense fog, starboard to starboard, although close together, the aberration of audibility of sound in fog not being taken into account at all, although it was shown that the fog signal sounded ahead and the defaulting steamer ported as she ought to have done to a fog signal ahead or nearly so.

The crowning error of the Judge's ruling, however, is contained in the statement that the twenty mile an hour boat "pursued her proper course and gave the proper signals for passing, continuing her full speed until the vessels, came in sight." Gave the proper signal for passing in a dense fog, forsooth! when all vessels are warned against giving any passing signal in fog unless they are in sight of each other. This feature has mystified and puzzled lake masters and pilots all season, yet, Judge Hanford in his views of Puget Sound navigation permits the passing signal in fog and talks about "proper course and proper signals."

Such a ruling is about what is wanted on the lakes, as the passing signal has always bean used to advantage and never more so than during thick weather, notwithstanding the law forbids its use, and it was only discovered by the U. S. steamboat inspection service this season that the custom had become a well established law, and was universally observed in lake navigation After this revelation, passing signals in fog were strictly prohibited, but we are safe in saying that the prohibition did'nt prohibit, at least during the past few months, for in getting clear of one another the single or double toot of a steam whistle to a vessel at close quarters is still found to be a wonderful relief to befogged seamen.

However, Judge Hanford wound up his sublime reasoning by adjudging both steamers at fault and dividing damages equally, which, after all, is a very logical way of getting out of such a dilemma, for there is a moiety of satisfaction in the fact that all concerned may be dissatisfied, on the hypothesis, that misery likes company. It is not to be denied, however, that in this case both vessels were at fault, and that the final rendering of the judgment was equitable, but it was radically wrong for the Judge to dwell upon and uphold assumptions relative to course, speed and audibility of sound, when each point was an unknown quantity, factor or element.

As the law now stands, vessels must go slow or at reduced speed in fog, nor may they make use of a passing signal unles in sight of each other. Lake navigation, inasmuch as it differs from coast and ocean service, finds these limitations fraught with danger, there is always present an unreliability of action, and in narrow crowded waterways where courses are nearly always parallel or opposite, the passing signal in fog has been found to work admirably, although we are perfectly aware of the fact that the system is susceptible of being demonstrated on paper, by theory and principle as one of never ending confusion.

On this point the nautical savant is liable to get stranded when forming inclusive rules for lakes and seaboard. Years of success in using the passing signals in fog on the lakes has proven their determinate qualities, reliability and adaptability, facts which rule-makers may easily be convinced of when they delve into the subject, if only in a superficial way.

IT is getting the custom on the lakes for sailors, firemen or deck hands to swear out a warrant against the master of a boat if he only looks sideways at them. Before this thing goes any further how would it do for the master or officers to lodge complaints after due provocation? there being a thousand and one instances where a case would stick during the course of a season.

LAKE FREIGHTS.

The season draws to a close with but little improvement in the freight market, and a large number of even the largest boats will go into winter quarters today to get an insurance rebate. Duluth only offers 2⅝ cents on wheat, and ore is still $1 from the head of the lakes, with shipping very dull from Two Harbors. Ashland, Marquette and Escanaba is still fairly brisk at former rates, from the latter port to Buffalo Furnace 65 cents. Chicago grain rates advanced to 1¼ cents to Buffalo, ¾ cent to Milwaukee on wheat.

Coal from Lake Erie ports to Lake Michigan has advanced 5 cents to Milwaukee, making the present rate 60 cents, although only one boat was named at the latter figure, and the rate for other ports was quoted at 50 cents. The Buffalo rate is 60 cents to Chicago, a number of charters requiring vessels to hold cargo, 30 cents to Duluth.

NORTH PACIFIC SEALING.

The official statement regarding the pelagic sealing of 1894, compiled from log books sworn to, has been forwarded to Ottawa, London, and Washington. The total for the year is the largest on record, the catch of the fifty-nine vessels being 94,474 this year's skins, against 70,332 for the fleet of fifty-five in 1893, and 45,385 for the sixty-five schooners in 1892. There were engaged this

year 818 whites and 518 Indians, last year's crews 847 whites and 432 natives. Divided in sections the catch of the Canadian fleet this season as compared with last is as follows: British Columbia catch for 1894 was 11,703; for 1893, 29,113. Japan Coast catch, 48;993; 29,206. Copper Islands, 7,487; 12,013. Behring Sea catch, 26,341; blank. Totals, 94,524; 70,332. Despite the magnitude of the catching, vessel owners are still complaining. They say that with three breaks in the season they are forced to hold their crews together, and taking the whole fleet into consideration, its operation has shown a magin of loss to owners, four or five of whom have lately sold their vessels to thrifty Indians. One of the most important features of the whole report is the statement showing how many of the seals taken in the Behring Sea were bulls and how many cows. The figures the collector has obtained on oath go to show that the proportion of bulls is far higher than has been claimed by some who fear the extermination of the seal herds, and the conclusion arrived at is quite different from that pointed to by figures reported sent from San Francisco to Washington a few weeks ago on the catch delivered at Victoria, B. C.

AERIAL NAVIGATION.

A report comes from Cincinnati this week that Walter A. Mercer, a scientist and inventor, 21 years of age, has solved the problem of aerial navigation by his own creation and practical application of it in a voyage he made near Trenton, N. J., August 27 last, alone in his ship and almost unobserved. He says the trip he took in his ship, which he christened the Albatross, was nearly 40 miles. Furthermore he built another ship on the St. Johns River, in Florida, on an improved plan, with the help of Thomas E. Edison, but his companion, Monroe Macquithe, of Indianapolis, in a trial trip broke the mechanism. Mercer claims that Prof. Langley, of the Smithsonian Institute, furnished him with a mariner's compass, a barometer and a thermometer to make his first test.

Both ends of the ship are conical shaped and are bulk headed, and hydrogen gas, with a mixture of oxygen, was forced into both ends to displace the weight of the machine. The Albatross is 11 feet 6 inches long and 6 feet wide when the two silk wing parachutes are open. The ship is built of aluminum and weighs 188 pounds and 8 ounces. It has one rear propeller 4 feet 8 inches long and four raising propellers 2 feet each on top, used to elevate the ship. Inside the arrangement was complete. There was an aluminum electrical engine of 3½ initial horse power; the armature and four motors were cleverly arranged with an idea of economizing space.

VISIBLE GRAIN SUPPLY.

The stocks of grain in Chicago elevators last Saturday evening were 25,394,000 bushels of wheat, 1,078,000 bushels of corn, 1,509,000 bushels of oats, 161,000 bushels of rye and 63,000 bushels of barley. Total, 28,205,000 bushels of all kinds of grain, against 21,988,000 bushels a year ago. For the same date the secretary of the Chicago Board of Trade states the visible supply of grain in the United States and Canada as 81,220,000 bushels of wheat, 2,638,000 bushels of corn, 9,065,000 bushels of oats, 449,000 bushels of rye and 3,993,000 bushels of barley. These figures are larger than the corresponding ones a week ago by 1,193,000 in wheat and smaller by 20,000 in corn. The visible supply of wheat for the corresponding week a year ago increased 2,656,000 bushels.

AIDS TO NAVIGATION.

Secretary Charles H. Keep, of the Lake Carriers' Association desires all possible information showing the necessity of the following aids to navigation.

Light and signal on N. Manitou Island.

Light and signal on Middle Island, Lake Huron.

Range lights at Death's Door Passage, Lake Mighigan.

Light and signal at Crisp's Point, (west of White Fish Point), Lake Superior.

Gas buoy on Gravelly Island, Poverty Passage, Green Bay.

Gas buoy on Lansing Shoal, north of Squaw Island, Lake Michigan.

Fog Signal at Eagle Harbor, Lake Superior.

Fog signal at Cat Head Point, Lake Michigan.

Pier lights at Grand Marais Harbor of Refuge, Lake Superior.

THE BALDWIN-KING COLLISION.

The sinking of the Baldwin off Marine City last week may likely turn out to be her own fault, and she will have to stand all the damage.

The mate of the King is reported as stating as follows: "As the King had but one schooner in tow, while the Baldwin had three, we were going much the faster. As we both neared Marine City, a tow was sighted abreast of Fawn Island, bound up. The Baldwin blew two whistles to the tow, as I supposed, and I, of course, did not answer. Then I blew one whistle, indicating to the Baldwin that I wanted to pass between her and the American shore, and she answered with one. I had gotten abreast of her second barge when she headed in toward Marine City. I was in a pocket. The Queen cast off her tow line and anchored. I thought I could get out of the scrape by going ahead and porting my wheel and I gave orders accordingly. The Baldwin continued in, however, and as we came abreast she struck the King on the port side, 20 feet from the bow, but such was our momentum that we damaged her sufficiently to cause her to sink. At the time of actual contact Capt. Millen had taken command, and we were backing full power, but the sheer we took sent us aground."

CASUALTIES TO VESSELS.

The past week has shown the usual amount of casualties to vessels at this time of the year, but happily with less loss of life than has occurred during many previous falls.

The stranding of the steamer Wetmore on the west shore of Lake Michigan near Cleveland, Wis., where she still remains is a serious loss to the underwriters. She had a cargo of 1,258 tons of coal for Milwaukee in charge of Capt. Joseph Davidson of Milan, O. Latest advices expect that she will be released after lightering though she has been abandoned by her owners.

The schooner, John Shaw, coal laden from Buffalo to Chicago, consort of the steamer John F. Eddy was abandoned on Lake Huron in a sinking condition on Tuesday. She is expected to be a total loss through foundering as nothing has yet been heard of her. The schooner West Side released from her stranded position on Pelee Island after lightering also shows up a considerable loss in damage to hull and cargo and a large number of minor casualties have been reported from each lake.

NOTICE TO MARINERS.

UNITED STATES OF AMERICA—NORTHERN LAKES AND RIVERS—MICHIGAN.

PORTAGE LALE SHIP CANAL RANGE LIGHT-STATION.—Notice is hereby given that, on or about November 15, 1894, two fixed tubular-lantern lights will be established to form a range for entering or leaving Portage Lake Ship Canal at the head of Portage Lake, Keweenaw Peninsula.

The front, or southerly, light, white, will be shown at a height of 7 feet above the mean level of the lake from a small, white, inclosed wooden tower on the S. end of the E. pier of the canal.

The rear, or northerly, light, red, will be shown at a height of 19 feet above the mean level of the lake from a post, with a triangular white day mark, located about 600 feet N. 7° E. (N. ¾ E.) of the preceding.

Bearing is true.

By order of the light-house board.

JAMES A. GREER,
Rear-Admiral, U. S. Navy, Chairman.

Office of the light-house board, Washington, D. C., November 12, 1894.

THE NEOSHO TO BE SOLD.

Vessel owners all over the lakes are interested in the outcome of the case of the steamer Neosho, which was recently wrecked in Lake Michigan and abandoned to the underwriters by her owners.

Judge Seaman, in the United States court, last Saturday, ordered the sale of the steamer on November 19, to satisfy a claim of the Swain Wrecking Co., of Detroit, for nearly $12,000. The Swain Wrecking Co., after the steamer had been abandoned, lightened the cargo of the wrecked steamer and pulled her of the shoal. The Neosha is now lying in Milwaukee.

Capt. Vance, in behalf of the insurance men, has stated that there was no dispute over the claims of the Swain company, and that the sale of the Neosho would not be contested. The claims of the Swain company, Mr. Vance stated, were not the only claims held against the steamer. There were others, he stated, aggregating about $6,000, all of them arising from the wrecking and getting the boat off the rocks. These claims, Capt. Vance states, are all valid and not opposed by the insurance companies.

The underwriters favor the sale of the boat. At present the Neosho is in nearly as bad a condition as when taken off the rocks. Temporary repairs were made in order to enable the steamer to reach a port of repair, but it will cost a considerable sum to put the Neosho in good condition and the insurance companies do not wish to go to the expense. In her present condition, the Neosho, according to Capt. Vance, is estimated to be worth $30,000, and it is expected that the sale will yield nearly as much as that amount.

SURFACE CONDENSERS AND FEED WATER HEATERS.

The Wheeler Condenser & Engineering Co., Cortlandt street, New York, announce that the Volz patent combined surface condenser and feed water heater, formerly furnished by the Standard Condenser Co., has now been purchased by them together with all rights covering the patents and manufacture of same. Mr. Wm. E. Volz, the patentee will represent this and other specialties in keeping with the rapid advancement in modern steam engineering as handled by the Wheeler Condenser & Engineering Co.

REPORTED BY THE LOOKOUT.

The schooner Laura Miller was libeled this week for a wrecking bill of $350, incurred when taken off the beach near Holland.

The new ferry boat to run between St. Clair and Courtright was launched from Simon Langell's yard at Marine City on Monday. She was named the Welcome and will go into service at once.

The steamer N. K. Fairbank is hauled out on the marine railway at Ogdensburg for repairs to her stern, which was damaged some time ago by a collision in the Welland canal.

The steamer S. C. Baldwin, which was sunk by collision with the Iron King last week was lightened 225, 000 teet of lumber after which she was towed to the Dunford & Alverson drydock at Port Huron, for survey and repairs.

An ice sheet an inch thick was frozen over the entire bay at Duluth, Saturday night, and wherever tugs went they had ice-breaking to do. Sunday night it froze hard again. Lake men state that unless the weather moderates very decidedly, navigation will close by Dec. 1, or earlier.

The Boscobel, Active, Peshtigo, Advance and Nobequay, of the Peshtigo Lumber Co.'s line of barges, have been laid up and stripped of their canvas at Marinette.

The case of Mrs. Maytham, widow of the late Capt. Thomas Maytham, against the Travelers' Insurance Co., for $5,000 damages as the amount of an accident policy on the life of her husband, was given to the jury in the Supreme Court this week. The question at issue was whether or not Capt. Maytham's death was the result of an accident. The jury awarded the full amount to Mrs. Maytham.

The Penberthy *Bulletin*, which has been published monthly for the last year and a half by the Penberthy Injector Co., Detroit, will be discontinued after the present issue and the *Boiler Room*, a new publication double the size of the *Bulletin*, will be issued in its place. The *Bulletin* has been a welcome guest to our exchange table and we have no doubt but that thousands of steam users enjoyed reading its pertinent articles from month to month.

The Montague Iron Works Co., of Montague, Mich., have closed a contract with Capt. W. H. Singer, manager of the Lake Superior Towing Association, Duluth, Minn., for a fore and aft compound marine engine with cylinder 18 and 36 inches by 30 inch stroke, and one marine boiler 9 feet in diameter by 14 feet long, to be placed in a large tug being built this winter at Ed. W. Heath's shipyard, Benton Harbor, Mich. The tug will be named Zenith and will be one of the largest and most powerful tugs on the chain of lakes.

MARITIME LAW.

AMERICAN STEEL BARGE CO. v. THE BATTLER.

District Court, S. D. New York. June 16, 1894.

TUG AND TOW—WEATHER ON STARTING—FOG—STRANDING—USAGES OF TIME AND PLACE—NEGLIGENCE.—A tug with a tow started to leave the mouth of the Kennebec River during a temporary lightening up of the prevailing fog. After her start the fog shut down again before the tow had reached the sea, and the pilot of the tug having been deceived as to his position by misleading signals from an anchored vessel, and the current being changeable and not to be counted upon, the tow was carried out of its course and stranded, and this suit was brought to recover the damages. The evidence indicates that by the usages of the time and place the start of the tug was justifiable and reasonably prudent, and as, after starting, the immediate cause of the collision was the misleading signal of the anchored vessel and the variable current, no fault could be found with her navigation after she had started; and hence, held, that the tug was not guilty of negligence.

REDDING v. THE FLYER.

District Court, D. Washington, N. D. June 18, 1894.

COLLISION—FOG—STEAMERS PASSING—RATE OF SPEED—Two steamers, on regular runs in opposite directions, in a fog so dense that the exact position and course of one could not be known to the officers of the other in time to pass safely at full speed, should have passed starboard to starboard, as their courses did not cross, and the master of each knew the route and direction of the other; but the master of one, hearing the other's whistle, assumed that they were coming together on opposite courses, gave the signal to pass port to port, and set his helm hard a-port, thereby swinging his vessel across the other's bow. The other pursued her proper course, and gave the proper signals for passing, but continued her full speed of 18 to 20 miles an hour until the vessels came in sight of each other, and before her speed was perceptibly checked, struck the timbers supporting the stern wheel of the first vessel. Held, that both were in fault.

Hanford, District Judge. The collision complained of in this case occurred on a foggy morning in October, 1892, about one mile and a half south of Battery Point (locally known as Alki Point). The Mary F. Perley was at the time on her regular run from Tacoma via. Vashon's Island to Seattle, and should have been at the time on a direct course from Beal's Point to Battery Point. The Flyer was making her regular run from Seattle to Tacoma, and had rounded Battery Point and taken her course from that point towards Point Pulley. On these courses the vessels should have passed each other starboard to starboard, as their tracks do not cross each other, the master of each vessel knew the route and schedule time of the other, and each should have known that in case of meeting south of Battery Point they should pass starboard to starboard. The master of the Flyer so understood and acted. But the libelant, who was in command of the Mary F. Perley, after hearing the Flyer's whistle, erroneously assumed that the vessels were coming together on opposite courses, and thereupon gave the signal to pass to port, and set his helm hard a-port, thereby swinging his vessel to a position across the bow of the Flyer. This, in my opinion was an inexcusable mistake, and a contributing cause to the collision. The Flyer pursued her proper course and gave the proper signals for passing, but on account of the density of the fog the exact position and course of one could not be known to the officers of the other vessel in time to pass safely, running at full speed. It was the duty of the Flyer, therefore, to proceed cautiously after hearing the whistle of the Mary F. Perley, and stop immediately after her failure to make the proper response to the Flyer's signal. The Flyer's master testified that within one minute and a half after giving his first signal her engines were stopped and reversed, and in this he is corroborated by the testimony of other officers of the Fyer; but upon a decided preponderance of the evidence I find the facts to be that from the time of leaving Seattle until the vessels came in sight of each other the Flyer was running at her full speed of 18 to 20 miles per hour. Her engine room bell was rung to stop and reverse as quickly as it could be after the first slow bell. Passengers who knew from the bells that something unusual was about to happen, had scarcely time to move from their seats in time to see the steamers come together. The Flyer's stem struck the timbers supporting the stern wheel of the Mary F. Perley with such great momentum as to cut away entirely the wheel and said supporting timbers, and tear out her eccentrics and one of her pistons. At the time of striking, the Flyer's speed had not been perceptibly checked. The duty of steam vessels to stop when there is known danger of colliding in a fog is imperative, and if the rule on this subject had been observed by the master of the Flyer, this collision could have been avoided. I find, therefore, that there was fault on the part of both vessels contributing to produce the injury to the libelant's vessel.

The case will proceed in the usual way to ascertain the amount of damages, and, when ascertained, one-half the amount thereof will be decreed in favor of the libelant. The costs will be divided equally. Fed. Rep. No. 62, No. 7.

AMPLITUDES.

The following approximate amplitudes of the Sun's rising will be given each week in this column during the season of navigation: A second bearing of the Sun may be taken at sunset by reversing the bearings to read west instead of east, as, for example, E. S. E. for a sunrise bearing would read W. S. W. for a sunset, or E. 25° S. to W. 25° S.

LAKE ERIE AND S. END LAKE MICHIGAN LAT. 42° N.

Sunrise.	Bearing (degrees.)	Bearing (points.)
Nov. 17	E. 26° S.	S. E. by E. ¾ E.
Nov. 21	E. 28° S.	S. E. by E. ½ E.

LAKE ONTARIO, S. END HURON AND CENTER LAKE MICHIGAN LAT. 44° N.

Sunrise.	Bearing (degrees.)	Bearing (points.)
Nov. 17	E. 27° S.	S. E. by E. ⅝ E.
Nov. 21	E. 28° S.	S. E. by E. ½ E.

N. END LAKES HURON AND MICHIGAN, LAT. 46° N.

Sunrise.	Bearing (degrees.)	Bearing (points.)
Nov. 17	E. 28° S.	S. E. by E. ½ E.
Nov. 21	E. 30° S.	S. E. by E. ⅜ E.

LAKE SUPERIOR LAT. 48° N.

Sunrise.	Bearing (degrees.)	Bearing (points.)
Nov. 17	E. 29° S.	S. E. by E. ⅜ E.
Nov. 21	E. 31° S.	S. E. by E. ¼ E.

With a compass correct magnetic, the difference between the observed and true bearings will be the variation for the locality. If there is any deviation on the course the vessel is heading at the time of taking the bearing the result after the variation is applied will be the amount of deviation on that course.

MARINE PATENTS.

The following list of patents issued November 6, 1894, is expressly reported by F. B. Keefer, Solicitor of Patents, 501 F street, Washington, D. C., from whom copies may be obtained at 25 cents:

528,433—Dredging apparatus; F. A. Hyatt, Beaumont, Texas.

524,375—Dredging implement; C. Meier, San Francisco, Cal.

528,221—Oar lock, H. Brinkmann, Munich, Germany.

528,353—Screw propeller; W. H. Jay, Providence, R. I.

528,265—Vessel propeller; S. S. Whipps, Minnesota.

528,138—Propeller; B. Bernstein, New York, N Y.

528,356—Steering engine; M. A. Beck, Milwaukee, Wis.

528,183—Steering gear; O. Schleicher, Germany.

TRADE CATALOGUE.

The trade catalogue and price list for 1895 of the Lunkenkeimer Co., of Cincinnati, New York and London, comes to hand as the first guide to purchasers which we have received for the coming year. It is a well printed book of 107 pages, profusely illustrated with cuts of the specialties in brass and iron valves, lubricators, oil cups, steam gauges, chime signal whistles, etc. In presenting the new catalogue to the trade, the manufacturers say: "We are pleased to state that the 'Lunkenheimer Specialties' continue to gain in popularity, and the high standard for superiority they have justly held has not been impaired. Our untiring efforts are constantly directed to keeping the quality and efficiency of our productions at the highest standard of excellence. We use only the best materials, maintain a rigid system of inspection in the production of every article, and subject them to tests before shipment. All our steam goods are made according to the United States government standard of steam composition, while many other manufacturers, to reduce the cost of production, use an inferior mixture—thus their difference in quality can only be discovered by practical use—and it is this superior quality of our steam composition that accounts for the marked and well-known durability of the Lunkenheimer productions. Our rigid system and care in producing only first-class, high-grade goods during the last thirty years, has brought our specialties to such a state of perfection that we can justly and modestly claim that they are to-day better than ever, and the best of their kind. They have become the 'criterion' of their class throughout the civilized world, and the market for them has so greatly extended that, to more properly serve our patrons, we have opened up New York and London branches. Both stores are in charge of competent managers, and we carry in them a complete stock of such goods as are called for in their respective markets."

Copies of this well bound and in every way presentable catalogue can be had by addressing the Lunkenheimer Co., Cincinnati, O.

THE NEW STEEL STEAMER, "GLOBE."

The following voluntary communication to the Globe Iron Works Co. from so excellent an authority as Capt. William P. Henry is known to be, bears valuable testimony to the skill and workmanship shown in the latest built steel lake freight steamer, a craft which we believe is awaiting a liberal purchaser.

LEHIGH VALLEY TRANSPORTATION CO.,
OFFICE OF MANAGER,
Buffalo, N. Y. Nov. 2, 1894.

Mr. John F. Pankhurst;
Gen. Mgr. Globe Iron Works Co., Cleveland, O.

DEAR SIR:—I went aboard the S. S. "Globe" this forenoon; went all through her. She is a very great freight ship. Her strength is enormous; her freight handling facilities are excellent. I talked with the Superintendent of the Line, and he said he never handled freight more rapidly than on the present occasion. I am very much suprised at the massiveness of her entire structure. The frames are heavier than any thing I ever saw. The plating is wonderfully heavy. The shear strake is a guarantee against the possibility of the ship breaking in two. I noticed the angle iron stringer running fore and aft between decks; also the superior support given to the decks by stanchions, etc.

She is the most wonderful boat I have ever seen for all kinds of business and is attracting a great deal of attention here because of her beauty, and her strength is the subject of universal conversation. I could not get into her water-bottom, but the Superintendent has promised to make an excursion there at the first opportunity and give me a chance to look into it,

Yours truly,

WM. P. HENRY, Manager.

INCREASING DEMAND FOR OTTO GAS ENGINES.

Contracts have just been given out for the erection of several large additional buildings to extend the facilities of the Otto gas engine works in Philadelphia. The company are now also building marine engines in sizes from 2 to 250 horse power, plans of which have been received from the Otto works in Germany, which have a capacity of from 2,500 to 3,000 engines per year. The latter type of machines will also be adapted to the use of running dynamos for electric lighting direct from the engine.

NOTES.

THE Ohio Steel Co., Youngstown, O., Henry Wick, president, C. H. Baldwin, secretary, have closed a contract with the Keasbey & Mattison Co., Ambler, Pa., through their Cleveland house, to cover the entire boiler and pipe equipment of their new plant with the famous Magnesia sectional covering.

WE have received from T. S. & J. D. Negus, 140 Water Street, New York, the well known chronometer and nautical iustrument manufacturers, a copy of their nautical almanac for 1895, now in its 56th year of publi cation. This annual which is enlarged beyond the scope of former issues contains the elements necessary for ordinary navigation besides a mass of data valuable to all coast seamen.

THE International Navigation Co. has decided to have all the funnels of the steamships under their control marked with the same distinguishing marks. The Red Star Line steamships for years have had their funnels marked with a red star; in the future these funnels will be marked as the American Line steamships are, that is, with one white band around each funnel about three feet from the top, like the old Inman style. The change will apply to all Red Star Line steamers sailing from Philadelphia, Antwerp and New York on and after Nov. 1. This will bring quite a fleet under the house-flag of the American Line.

WILLIAM L. BROWN, President.
WALTER F. COBB, Vice President and Treasurer.
W. I. BABCOCK, Manager.
O. R. SINCLAIR, Secretary and Asst. Treas.

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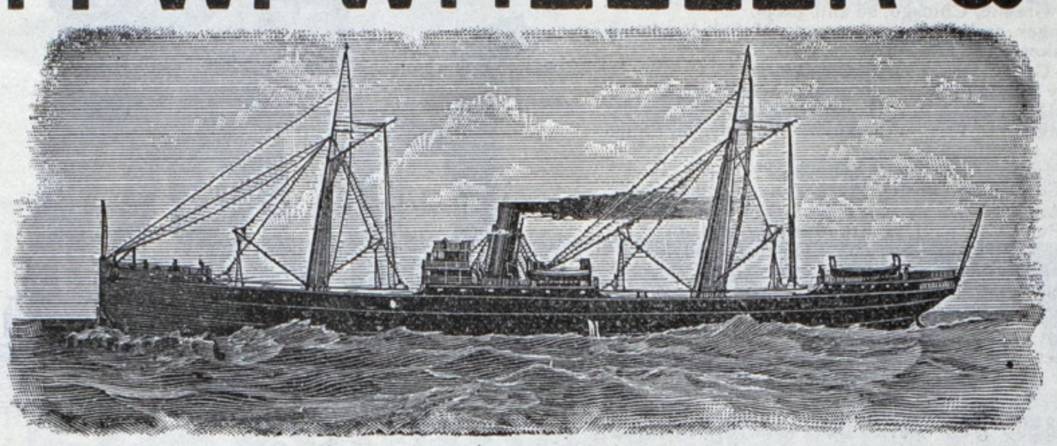

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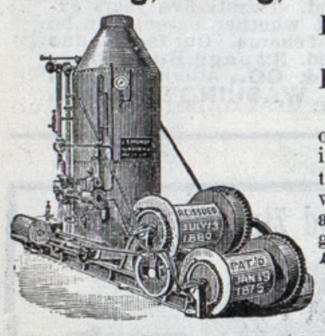

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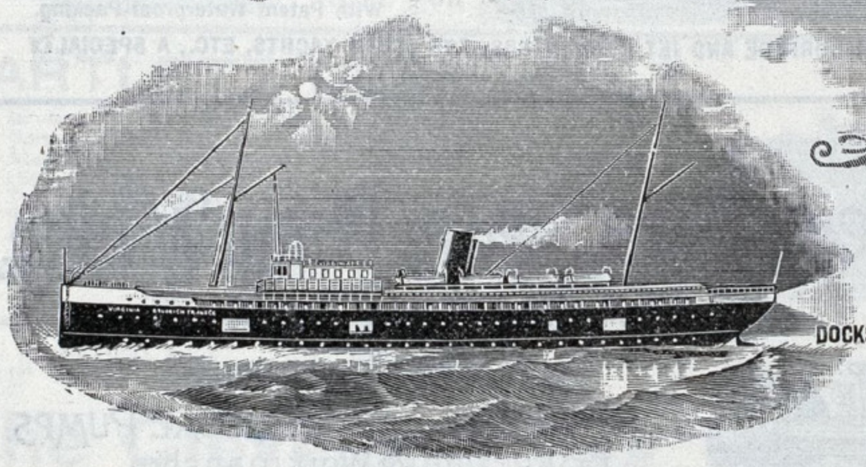

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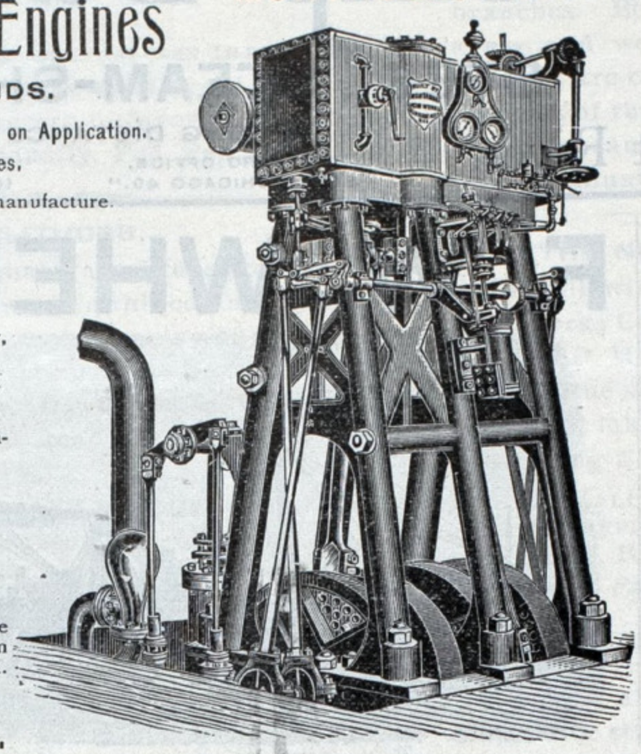

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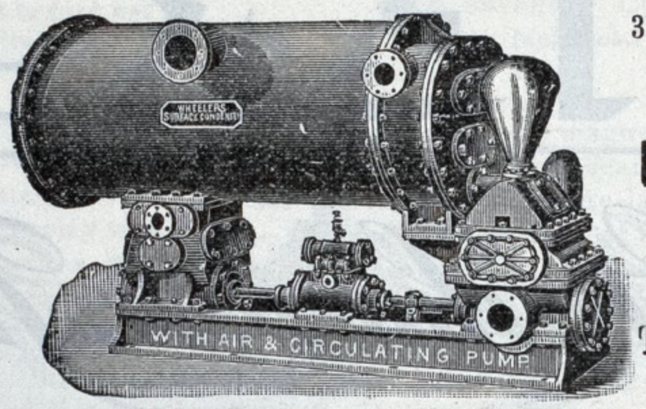

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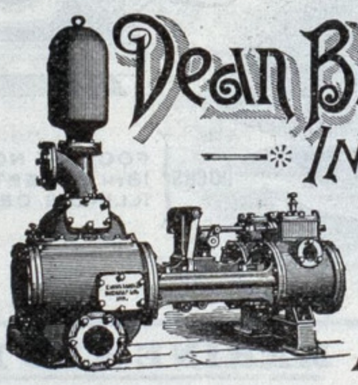

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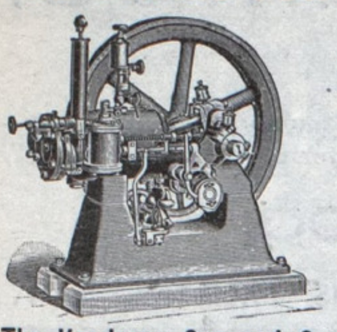

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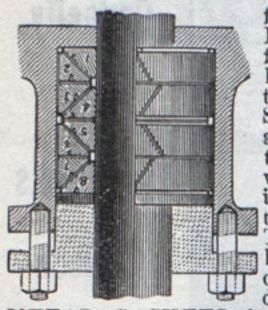

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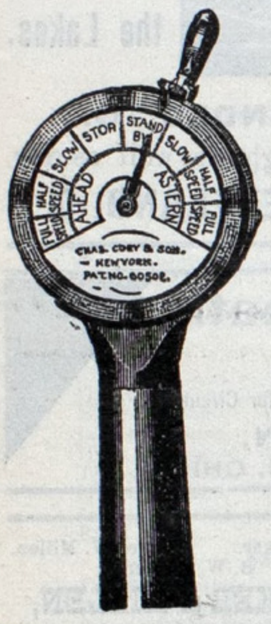

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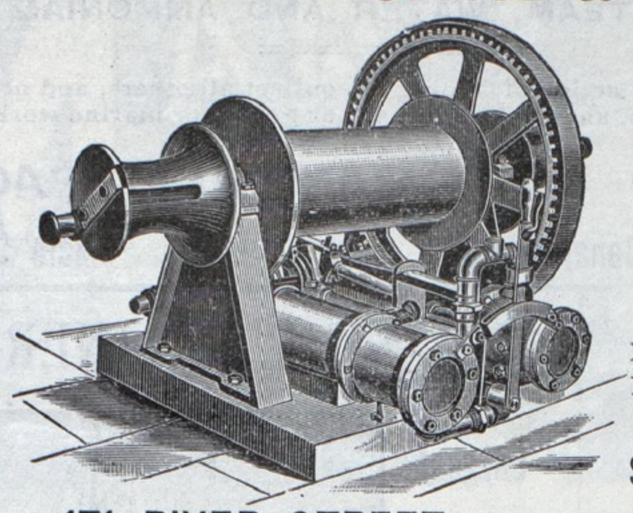

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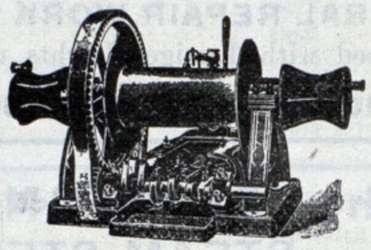

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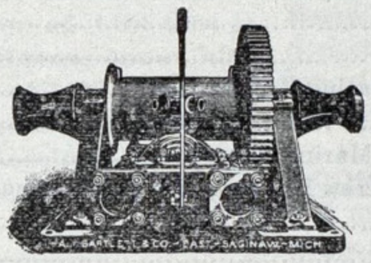

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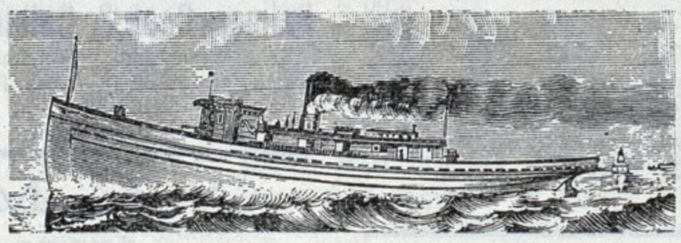

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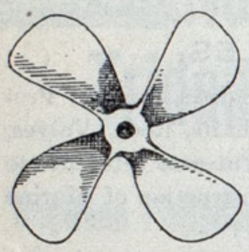

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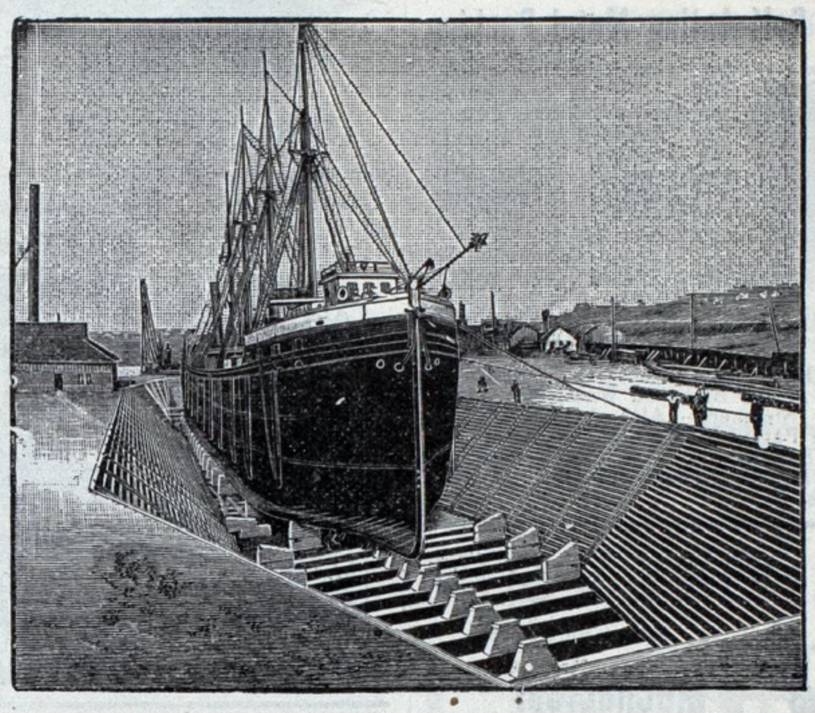

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